

**Amendments to the Claims:**

This listing of the claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-75 (Cancelled).

76. **(New)** A method of collecting information relating to a communication network and to nodes operating therein, the method comprising:

enabling passive detection of data conveyed by one or more nodes detected as operating in the communication network, said detection of data provided in a manner that is transparent to said one or more detected nodes, to yield passively detected data;

analyzing said passively detected data to identify missing information, wherein said missing information comprises missing information relating to at least one of said one or more detected nodes and missing information relating to said communication network;

analyzing at least one of said passively detected data and identified missing information to identify among nodes operating in said communication network one or more nodes to be queried for said missing information, to yield queried nodes; and

querying at least one of said identified queried nodes, thereby enabling collection of said missing information actively.

77. **(New)** The method of Claim 76, wherein said passively detected data comprise information selected from a group comprising: information relating to operating systems of detected nodes, information related to network running processes operating on the detected nodes and node identification information.

78. **(New)** The method of Claim 76 wherein the missing information is selected from a group comprising: information relating to operating systems of respective nodes, node identification information, information related to network running processes operating on the respective nodes, information related to local running processes operating on the respective nodes, information relating to hardware components associated with the respective nodes, and topology information relating to physical topology of the communication network.

79. **(New)** The method of Claim 76 wherein querying at least one of said identified queried nodes is provided if missing information matches one or more predefined conditions.

80. **(New)** The method of Claim 79 wherein the predefined condition is characterized by a time interval passed after passive detection of data.

81. **(New)** The method of Claim 80 wherein the time interval varies for different types of missing information.

82. **(New)** The method of Claim 76, wherein the queried nodes comprise merely detected nodes.

83. **(New)** The method of Claim 76 wherein the queried nodes do not comprise detected nodes.

84. **(New)** The method of Claim 76, further comprising:

generating a query message corresponding to said missing information for conveying said query message to one or more queried nodes;

receiving at least one response that corresponds to the query message;

and processing the at least one response to retrieve information corresponding to said missing information.

85. **(New)** The method of Claim 84, wherein the query message is one of the following: an ARP (Address Resolution Protocol) request; an ICMP (Internet Control Message Protocol) echo request; and a TCP-SYN request.

86. **(New)** A network information collector operable to collect information relating to a communication network and to nodes operating therein, the network collector comprising:

a network detector operable to enable passive detection of data conveyed by one or more nodes detected as operating in the communication network, said detection of data provided in a manner that is transparent to said one or more detected nodes, to yield passively detected data;

an analyzer operable to analyze said passively detected data to identify missing information, wherein said missing information comprises missing information relating to at least one of said one or more detected nodes and missing information relating to said communication network, and to analyze at least one of said passively detected data and identified missing information to identify among nodes operating in

said communication network one or more nodes to be queried for said missing information, to yield queried nodes; and

a querying engine operable to query at least one of said identified queried nodes, thereby enabling collection of said missing information actively.

87. **(New)** The network information collector of Claim 86, wherein said passively detected data comprise information selected from a group comprising: information relating to operating systems of detected nodes, information related to network running processes operating on the detected nodes and node identification information.

88. **(New)** The network information collector of Claim 86 wherein said missing information is selected from a group comprising: information relating to operating systems of respective nodes, node identification information, information related to network running processes operating on the respective nodes, information related to local running processes operating on the respective nodes, information relating to hardware components associated with the respective nodes, and topology information relating to physical topology of the communication network.

89. **(New)** The network information collector of Claim 86, wherein the analyzer is operable to instruct the query engine to start querying if missing information matches one or more predefined conditions.

90. **(New)** The network information collector of Claim 89, wherein the predefined condition is characterized by a time interval passed after passive detection of data.

91. **(New)** The network information collector of Claim 90, wherein the time interval varies for different types of missing information.

92. **(New)** The network information collector of Claim 86, wherein the queried nodes comprise merely detected nodes.

93. **(New)** The network information collector of Claim 86, wherein the queried nodes do not comprise detected nodes.

94. **(New)** The network information collector of Claim 86, wherein the query engine further comprises: a query message generator operable to generate a query message corresponding to the missing information for conveying said query message to one or more queried nodes; an input device operable to receive at least one response that corresponds to the query message; and a response processor operable to process the at least one response to retrieve information corresponding to the missing information.

95. **(New)** A non-transitory program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform a method of collecting information relating to a communication network and to nodes operating therein, the method comprising:

enabling passive detection of data conveyed by one or more nodes detected as operating in the communication network, said detection of data provided in a manner that is transparent to said one or more detected nodes, to yield passively detected data;

analyzing said passively detected data to identify missing information, wherein said missing information comprises missing information relating to at least one of said one or more detected nodes and missing information relating to said communication network;

analyzing at least one of said passively detected data and identified missing information to identify among nodes operating in said communication network one or more nodes to be queried for said missing information, to yield queried nodes; and

querying at least one of said identified queried nodes, thereby enabling collection of said missing information actively.

96. **(New)** A computer program product comprising a non-transitory computer useable medium having computer readable program code embodied therein for collecting information relating to a communication network and to nodes operating therein, the computer program product comprising:

computer readable program code for enabling the computer to passively detect data conveyed by one or more nodes detected as operating in the communication network, said detection of data provided in a manner that is transparent to said one or more detected nodes, to yield passively detected data;

computer readable program code for causing the computer to analyze said passively detected data to identify missing information, wherein said missing information comprises missing information relating to at least one of said one or more detected nodes and missing information relating to said communication network;

computer readable program code for causing the computer to analyze at least one of said passively detected data and identified missing information to identify among nodes operating in said communication network one or more nodes to be queried for said missing information, to yield queried nodes; and

computer readable program code for causing the computer to query at least one of said identified queried nodes, thereby enabling collection of said missing information actively.